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10/781,154

02/17/2004

Harold J. Riley

H0005965-1170

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7590

04/28/2006

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EXAMINER

CASAREGOLA, LOUIS J

ART UNIT

PAPER NUMBER

3746

DATE MAILED: 04/28/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/781,154

Applicant(s)

RILEY, HAROLD J.

Examiner

Louis J. Casaregola

Art Unit

3746

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
 - If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
 - Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 3/7/06.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-25 is/are pending in the application.
- 4a) Of the above claim(s) 7-11, 18-25 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-6, 12-17 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

Election

Applicant's election of the invention of Group I, claims 1-6, is acknowledged. An action on the merits of these claims along with linking claims 12-17 is presented below, and non-elected claims 7-11 and 18-25 are withdrawn from further consideration.

Claim Rejections - 35 USC 112

Claims 1-6 and 12-17 are rejected under 35 USC 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

The present invention is a control method for an auxiliary power unit, and the claims all recite the step of "comparing the exhaust gas temperature to a temperature trim limit"; see lines 4-5 in claims 1 and 6, and lines 7-8 in claim 12. The cited language renders the claims vague and indefinite, however, since there is no clear connection between the resulting parameter produced by the comparison step, i.e. temperature error, and the remaining method steps. None of the other method steps actually use a temperature difference or error value, and it appears that applicant may have omitted some intended language that relates this parameter to the remaining portion of the claimed method.

Claims 12-17 further recite the steps of “calculating an on-speed fuel flow trim value from the speed error” and “subtracting the on-speed fuel flow trim value from a commanded fuel flow value”; claim 12, lines 18-21. It is not clear how applicant intends these steps to correspond with the disclosed embodiment of the invention. As shown in Figure 4 for example, the speed error is calculated and fed through proportional and integral control elements in unit 302, but it is not clear which if any function of speed error constitutes the “on-speed fuel flow trim value” referred to in line 18. Furthermore, it is not clear which if any of the functions shown constitute “subtracting the on-speed fuel flow trim value from a commanded fuel flow value” as specified in lines 20-21.

Claim 17 additional requires “providing an upper limit on the on-speed fuel flow trim value”, but since the trim value itself cannot be positively identified, it is not clear which of the various limits in the preferred embodiment correspond to the “upper limit” referred to in the claim.

References

Harris, Rajamani et al, Hirayama et al are cited as disclosing pertinent examples of gas turbine fuel systems that employ exhaust gas temperature as a control parameter. Because of the questions raised by the § 112 rejection above, however, the references cannot be applied at this time.

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Art Unit: 3746

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L. J. Casaregola
571-272-4826 (M-F; 7:30-4:00)
571-273-8300 FAX
April 25, 2006

If repeated attempts to reach the examiner by telephone are unsuccessful, the art unit supervisor, Timothy Thorpe, can be reached at 571-272-4444.

Information regarding the status of this application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR, and status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).